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09/216,004	12/17/1998	WING C. CHAU	81862.P106	1360

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EXAMINER

BOAKYE, ALEXANDER O

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 09/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

58

Office Action Summary	Application No. 09/216,004	Applicant(s) CHAU ET AL.	
	Examiner ALEXANDER BOAKYE	Art Unit 2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2006.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-11, 13-15, 17-23, 25-34, 36-38, 40-55 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 7-9, 13-15, 17-19, 22, 23, 25-30, 36, 37-38, 40-42, 48, 49, 52, 54 and 55 is/are rejected.
 7) ☒ Claim(s) 10, 11, 20, 21, 31-34, 43-47, 50 and 51 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Allowable Subject Matter

1. The indicated allowability of claims 7, 8, 45-47, 9-11, 17-21, 48-51, 23, 25-34 and 40-44 are withdrawn because Chen et al. US Patent No. 6,611,531 anticipates the Applicant's claimed invention. Rejections based on the Chen reference(s) follow.

Claim Rejections - 35 USC § 102

2.. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 7-9,13-15,17-19, 22-23, 25-30, 36-38, 40-42, 48-49, 52 and 54-55 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen et al. (US Patent # 6,611,531).

Regarding claim 7, Chen teaches a system, comprising: a digital signal processing (DSP) resource manager (3400, Fig. 34) configured to ensure DSP availability for each of a number of channels as individual ones of the channels are

activated, wherein the DSP resource manager is configured to ensure DSP availability by controlling allocation of number of DSP resources among the activated channels (column 21, lines 45-52), wherein the DSP resources are assigned to DSP resources among the activated channels, wherein the DSP resources are assigned to DSP groups according to information compression requests associated with the activated channels (column 21, lines 45-61).

Regarding claim 8, Chen teaches that each of the DSP resource is configured to process one or more of the voice channels depending upon the compression scheme selected (column 6, lines 33-40).

Regarding claim 9, Chen teaches a system, comprising: a digital signal processing (DSP) resource manager (3400, Fig.34) configured to ensure DSP availability for each of a number of channels as individual ones of the channels are activated, wherein the DSP resource manager is configured to ensure DSP availability for each of the channels by assigning a sufficient number of DSP resources to each of a number of DSP groups to process information transmitted within all activated channels (column 21, lines 45-48) by controlling allocation of number of DSP resources among the activated channels (column 21, lines 45-52).

Regarding claim 13, Chen teaches a method, comprising: managing a digital signal processing (DSP) system to ensure DSP availability for each of a number of channels as individual ones of the channels are activated (column 21, lines 45-48), wherein a DSP resource manager configured to ensure DSP availability for each of a number of channels by assigning a sufficient number of DSP resources to each of a

Art Unit: 2616

number of DSP groups to process information transmitted within all activated channels (column 21, lines 45-52); and grouping various number of the channels together in a carrier system (column 21, lines 45-48; column 11, lines 16-35).

Regarding claim 14, Chen teaches that the carrier system is comprised of T1 lines (column 19, lines 45-49).

Regarding claim 15, Chen teaches that each of a number of T1 lines is initialized as DSP resources become available (Column 19, lines 45-49 ; see 3612 of Fig. 36).

Regarding claim 17, Chen teaches a method comprising managing a digital signal processing (DSP) system to ensure DSP availability for each of a number of channels as individual ones of the channels are activated or deactivated (column 21, lines 45-48), wherein ensuring DSP availability comprises allocating a number of DSP resources among activated ones of the channels, and wherein allocation of the DSP resources to DSP groups is performed by a DSP resource manager according to information compression requests associated with the activated channels (column 21, lines 45-52).

Regarding claim 18, Chen teaches that configuring of each of the DSP resources to process one or more of the activated channels is dependent upon the compression scheme selected (column 6, lines 59-66).

Regarding claim 19, Chen teaches assigning a sufficient number of DSP resources to each of a number of DSP groups to process information transmitted within all activated channels (column 7, lines 8-23).

Regarding claim 22, Chen teaches a system comprising: a plurality of digital signal processing (DSP) resources (column 19, lines 18-22) and a DSP resource manager configured to allocate the DSP resources among DSP resource groups according to requirements of a plurality of channels utilizing the DSP resources (column 21, lines 45-48), allocating sufficient DSP resources to one of the DSP resource groups to process all of the plurality of channels (column 21, lines 45-55).

Regarding claim 23, Chen teaches that the DSP resource manager allocates the DSP resources into two DSP resource groups (column 21, lines 45-52).

Regarding claim 25, Chen teaches that one of the DSP resource groups is a compression group comprised of DSP resources which compress voice and data information transmitted over the channels (see Fig. 23).

Regarding claim 26, Chen teaches that one of the DSP resource groups is a PCM group comprised of DSP resources which compress the voice and data information using pulse code modulation "PCM" (column 6, lines 33-40).

Regarding claim 27, Chen teaches that the PCM group contains sufficient DSP resources to process all of the channels not being processed by the compression group (column 21, lines 45-61).

Regarding claim 28, Chen teaches that each of the plurality of channels is comprised of active channels and inactive channels (column 21, lines 45-52).

Regarding claim 29, Chen teaches that the DSP resource manager allocates sufficient DSP resources to a first DSP resource group to process all of the active channels not being processed by the remaining DSP resources (column 7, lines 8-23).

Regarding claim 30, Chen teaches that the first DSP resource group is PCM group comprised of DSP resources which perform pulse code modulation (column 8, lines 43-59).

Regarding claim 36, Chen teaches an apparatus comprising: means for managing a digital signal processing (DSP) system to ensure DSP availability for each of a number of channels as individual ones of the channels are activated (column 21, lines 45-48); wherein a DSP resource manager is configured to ensure DSP availability for each of the channels by assigning a sufficient number of DSP resources to each of number of DSP groups to process information transmitted within all activated channels (column 21, lines 45-61) and means for grouping various number of the channels together in a carrier system (column 11, lines 16-35).

Regarding claims 37 and 38, Chen teaches that the carrier system is comprised of T1 lines (column 19, lines 45-49).

Regarding claims 40, Chen teaches an apparatus comprising: means for managing a digital signal processing (DSP) system to ensure DSP availability for each of a number of channels as individual ones of the channels are activated or deactivated, wherein ensuring DSP availability comprises allocating a number of DSP resources among activated ones of the channels (column 21, lines 45-52), and wherein allocation of the DSP resources to DSP groups is performed by a DSP resource manager according to information compression requests associated with the activated channels (column 21, lines 45-61).

Regarding claim 41, Chen teaches that configuring of each of the DSP resources to process one or more of the activated channels is dependent upon the compression scheme selected (column 6, lines 59-66).

Regarding claim 42, Chen teaches a means for assigning a sufficient number of DSP resources to each of a number of a DSP groups to process information transmitted within all activated channels (column 24, lines 1-19).

Regarding claim 48, Chen teaches that allocation comprises assigning the DSP resources to a pulse code modulation (PCM) group to process activated channels in a baseline PCM mode (column 22, lines 10-29).

Regarding claim 49, Chen teaches reserving, by the DSP resource manager, sufficient number of DSP resources in the PCM group to ensure processing of any of the activated channels (column 24, lines 1-19).

Regarding claim 52, Chen teaches that various numbers of the channels are grouped together in a carrier system (column 11, lines 16-34).

Regarding claim 53, Chen teaches that the carrier system is comprised of T1 lines (column 19, lines 45-49).

Regarding claim 54, Chen teaches that the DSP resource manager is configured to initialize each of a number of T1 lines depending on the availability of DSP resources (column 21, lines 45-61).

Regarding claim 55, Chen teaches that the channels comprise voice channels (2102 of Fig. 21).

Allowable Subject Matter

3. Claims 10-11, 20-21, 31-34, 43-44, 45-47, 50-51 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments filed 6/22/06 have been fully considered but they are not persuasive.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Boakye whose telephone number is (571) 272-3183. The examiner can normally be reached on M-F from 8:30am to 6:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (571) 272-3179. The fax number is (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Electronic Business Center numbers 866-217-9197 and 703-305-3028.

Alexander Boakye

Patent Examiner.

AB

8/31/06


CHI PHAM
SUPERVISORY PATENT EXAMINER
9/1/06